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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
)  
David W. CANNELL et al. ) Group Art Unit: 1617  
)  
Application No.: 09/648,376 ) Examiner: S. Wang  
)  
Filed: August 25, 2000 )  
)  
For: PROTECTION OF KERATINOUS ) Confirmation No.: 5418  
FIBERS USING CERAMIDES )  
AND/OR GLYCOCERAMIDES )

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Sir:

**APPEAL BRIEF UNDER BOARD RULE § 41.37**

In support of the Notice of Appeal filed December 6, 2005, and further to Board Rule 41.37, and to the Notice of Panel Decision from Pre-Appeal Brief Review dated January 17, 2006, Appellants present this brief and enclose herewith a check for the fee of \$500.00 required under 37 C.F.R. § 1.17(c). This Appeal Brief is being filed concurrently with a petition for an Extension of Time for four months, and the appropriate fee, extending the due date to June 17, 2006.

This Appeal responds to the August 11, 2005, final rejection of claims 1-3, 5-12, 16-26, 50 and 53.

06/16/2006 JADD01 00000037 060916 09648376

If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.



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I. **REAL PARTY IN INTEREST**

L'Oréal S.A. is the real party in interest, as indicated by the assignment in its name, recorded at Reel 011386, Frame 0575.

**II. RELATED APPEALS AND INTERFERENCES**

There are currently no other appeals or interferences, of which Appellants, Appellants' legal representative, or assignee are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 1-12, 16-36, 38-40, 44-50 and 53 are pending. Claims 4 and 27-36, 38-40, and 44-49 have been withdrawn from consideration by the Examiner.

Claims 1-3, 5-12, 16-26, 50 and 53 have been finally rejected by the Examiner, and Appellants appeal the rejection of those claims. Further to 37 C.F.R.

§ 41.37(c)(1)(iii), the attached Appendix contains a clean copy of the claims.

**IV. STATUS OF AMENDMENTS**

All amendments have been entered. No amendments under 37 C.F.R. § 1.116 have been filed.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates to compositions for the protection of keratinous fibers comprising at least one compound chosen from ceramides and glycoceramides, at least one cationic polymer, and at least one amphoteric polymer. Specification as-filed at page 1, lines 1-3.

It is known in the art that keratinous fibers, such as human hair, can be damaged (i.e., sensitized or weakened) to various degrees by the action of atmospheric agents, as well as by the action of chemical hair treatments such as dyeing, bleaching, permanent waving, and/or relaxing/straightening, especially when repeated over time. Specification as-filed at page 1, lines 7-11. As a result of this damage, hair can become difficult to detangle and to style, as well as rough to the touch. Specification as-filed at page 1, lines 11-12.

To protect the hair during chemical treatment, it is known to include various protective compounds in the chemical treatment compositions. Specification as-filed at page 1, lines 13-14. Ceramides are known as protective agents for the hair, but they can have the drawback of being unstable in alkaline formulations. Specification as-filed at page 1, lines 14-16. This instability can be problematic since chemical treatments for hair, such as dyeing, bleaching, permanent waving, and/or relaxing/straightening, are generally alkaline. Specification as-filed at page 1, lines 16-18. In addition, this instability can cause difficulties in shelf-life and storage for the chemical treatment compositions containing ceramide protecting agents. Specification as-filed at page 1, lines 18-20. Thus, there is a desire to use ceramides as protecting agents for the hair

without compromising the stability of the chemical treatment formulations with which they may be used. Specification as-filed at page 1, line 20 to page 2, line 2.

In addition to protecting hair, it is also sought after to provide the hair with desirable styling properties, appearance and feel following chemical treatment. Specification as-filed at page 2, lines 3-4. Cationic polymers have been used to facilitate detangling and improve the softness and feel of the hair, and also to provide protection of the hair fibers. Specification as-filed at page 2, lines 4-6. However, cationic polymers can have a number of disadvantages when used alone, such as a tendency to make the hair appear lank and greasy, particularly when other chemical treatments are superposed on the hair. Specification as-filed at page 2, lines 6-9. Amphoteric polymers have also been used but similarly fail to provide sufficient softness and detanglement when used on their own. Specification as-filed at page 2, lines 9-11.

Thus, there is a need in the art for stable compositions which can protect the hair from damage caused by chemical treatment and which can also allow the hair to retain excellent styling properties, feel, and appearance. Specification as-filed at page 2, lines 12-14.

Appellants have discovered, surprisingly, that applying a composition comprising at least one compound chosen from ceramides and glycoceramides to the keratinous fibers prior to chemical treatment, *i.e.*, as a pre-treatment composition, improves the protection of the fibers from the ravages the chemical treatments. Specification as-filed at page 2, lines 15-19. In other words, the problems of instability discussed above can be avoided by not including the at least one compound chosen from ceramides and glycoceramides in the treatment composition itself. Specification as-filed at page 2, line



19 to page 3, line 2. For example, in one embodiment of the present invention, the pre-treatment composition is not rinsed off the fibers prior to chemical treatment.

Specification as-filed at page 3, lines 2-4.

Appellants have further discovered that the combination of at least one compound chosen from ceramides and glycosceramides, at least one cationic polymer, and at least one amphoteric polymer forms a composition which can provide superior protection, feel, and an overall healthy appearance to keratinous fibers subjected to chemical treatment. Specification as-filed at page 3, lines 6-10.

Specifically, the inventive compositions comprise:

at least one compound chosen from ceramides and glycosceramides,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22,

wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1. Specification as-filed at page 3, lines 11-14; at page 29, lines 13-16; and Examples 3 and 4.

The present invention also relates to a multi-compartment kit for the chemical treatment of keratinous fibers comprising at least two separate compartments, wherein

a first compartment comprises a composition comprising

at least one compound chosen from ceramides and glycosceramides,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22, and

a second compartment comprises a composition for chemical treatment of said keratinous fibers,

wherein said composition for chemical treatment is an oxidizing composition.

Specification as-filed at page 4, lines 3-8; at page 29, lines 13-16; and Examples 1-4.

The present invention still further relates to a pretreatment composition comprising:

at least one compound chosen from ceramides and glycoceramides,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22,

wherein said pretreatment composition is not a dyeing composition, a bleaching composition, a permanent waving composition, a relaxing composition, or a straightening composition,

wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 2:1, and

wherein the pH of said pretreatment composition is greater than or equal to about 4. Specification as-filed at page 4, lines 3-8; at page 29, lines 13-16; and Examples 1 and 2.

**VI. GROUND OF REJECTION**

Claims 1-3, 5-12, 16-26, 50 and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,700,456 ("*Dubier*") in view of U.S. Patent No. 5,656,258 ("*Cauwet*") and U.S. Patent No. 5,958,392 ("*Grollier*").

## VII. ARGUMENT

Each claim of the present application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. The arguments set forth below are arranged under separate subheadings, and in accordance with 37 C.F.R. § 41.37(c)(1)(vii) these subheadings indicate the claims that are argued separately.

The Examiner rejects claims 1-3, 5-12, 16-26, 50 and 53 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,700,456 ("*Dubief*") in view of U.S. Patent No. 5,656,258 ("*Cauwet*") and U.S. Patent No. 5,958,392 ("*Grollier*"). See Final Office Action at 2. Appellants maintain that a prima facie case of obviousness has not been established for the reasons set forth below.

In order to carry the initial burden of establishing a prima facie case of obviousness the Examiner must show that the cited prior art references teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). The Examiner must also show that there is some suggestion or motivation, either in the references, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). "Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference." *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1316-17 (Fed. Cir. 2000) (citations omitted). In addition, the suggestion or motivation "must be found in the prior art reference, not in the Applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991).

**A. The cited references do not teach or suggest all of the claim limitations**

**All words** in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03 (citations omitted) (emphasis added). All three references combined do not teach or suggest all of the present claim limitations, as required for a showing of obviousness. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

**1. Claims 1-3, 5-12, 16-26, and 53**

Claim 1 and its dependent claims recite a composition comprising, among other things, at least one cationic polymer and at least one amphoteric polymer chosen from polyquaternium-22, “wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1.” See, e.g., claim 1. Similarly, independent claim 53 recites at least one cationic polymer and at least one amphoteric polymer chosen from polyquaternium-22, “wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 2:1.” See claim 53. The Examiner has not and cannot show that the cited references combined teach or suggest all of the claim limitations of the independent claims 1 and 53.

The Examiner cites *Dubief* for teaching a composition comprising “ceramide compounds and a cationic polymer” and has admitted that *Dubief* does not teach polyquaternium-22. Final Office Action at 2. The Examiner asserts that *Grollier* “teaches the employment of a combination of cationic polymer and amphoteric polymer in hair cosmetic composition. Such combination has over come many disadvantages of

compositions using cationic polymer alone or using other combination.” *Id.* at 3 (citing Grollier at col. 1, lines 16-59). *Grollier* also does not teach the use of polyquaternium-22. Finally, the Examiner asserts that *Cauwet* “teaches that polyquaternium-22, or MERQUAT 280 is a known amphoteric copolymer of acrylic acid and dialkylaminoalkyl acrylamide, and is particularly useful in hair treating composition with cation [sic] polymers.” *Id.* (citing *Cauwet* at col. 1, line 49 to col. 2, line 65; col. 3, lines 1-38; col. 6, lines 10-28).

Appellants respectfully point out that while *Cauwet* expressly teaches polyquaternium-22, it also expressly teaches that the weight ratio of its at least one quaternary polyammonium polymer (a) (*i.e.*, cationic polymer) to its at least one polymer (b) (*i.e.*, amphoteric polymer) containing diallyldialkylammonium units be less than 1. See, *e.g.*, the Abstract of *Cauwet*. Thus, there is no teaching of at least one amphoteric polymer chosen from polyquaternium-22 wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1, or greater than or equal to 2:1. See, *e.g.*, Claims 1 and 53. In fact, the disclosure of *Cauwet* teaches away from the present claims, despite the fact that it discloses polyquaternium-22.

The Examiner cannot pick and choose from a reference only the teachings that suit his purpose. A reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must also be considered. See *Bausch & Lomb, Inc. v. Barnes Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 U.S.P.Q. 416 (Fed. Cir. 1986). “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out

in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994).

As shown above, the entire teaching of *Cauwet* is of at least one cationic polymer in combination with at least one amphoteric polymer (polyquaternium-22) **in a ratio no greater than 1.5 to 1..** See, e.g., *Cauwet* Examples. By disclosing such a ratio, *Cauwet* is teaching that the weight content of cationic polymers needs to be **equal to or less than** amphoteric polymers. Thus, *Cauwet* teaches away from the present claims, which require that the weight ratio of the at least one cationic polymer to the at least one amphoteric polymer be **greater than or equal to 3:1, or greater than or equal to 2:1.** In other words, according to the present invention, the weight content of cationic polymers is **greater than** the amphoteric polymers, which is the opposite of the teaching of *Cauwet*.

It is clear that the Examiner is picking and choosing among the disclosure of *Cauwet*, and in the process, is ignoring the fact that *Cauwet* teaches ingredients in a ratio contrary to the presently claimed ratio. The Examiner has failed to point to a teaching of at least one amphoteric polymer chosen from polyquaternium-22 wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1, or greater than or equal to 2:1. Accordingly, for at least the foregoing reasons, the Examiner has not established a prima facie case of obviousness.

**2. Claim 50**

The Examiner has not even attempted to show the claim elements from claim 50 as being taught by the cited references. Claim 50 recites

a multi-compartment kit for the chemical treatment of keratinous fibers comprising at least two separate compartments, wherein

a first compartment comprises a composition comprising

at least one compound chosen from ceramides and glycoceramides,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22, and

a second compartment comprises a composition for chemical treatment of said keratinous fibers,

wherein said composition for chemical treatment is an oxidizing composition.

See claim 50. The Examiner has not and cannot show that the three references combined teach or disclose a kit, let alone a multi-compartment kit as-claimed.

The Examiner merely asserts that “making a kit comprising the composition herein and other hair treating composition, such as hair dyeing composition is obvious to one of ordinary skill in the art because such composition is known to be particularly useful before or after other hair treatment.” Final Office Action at 4. Such a conclusion does not point to any specific teaching in the cited references because no such teaching exists.

Indeed, the only reference that arguably comes close to teaching a multi-compartment kit is *Grollier*, which teaches “two stage formulations.” See *Grollier* at



Examples 21-23. However, the two stage formulations of *Grollier* actually separate the specific cationic and specific amphoteric polymers, contrary to the kit compositions as claimed. *Id.* Moreover, neither Dubief nor Cauwet teach or suggest a two-step composition or process that would indicate a multi-compartment kit as-claimed.

It is clear that the Examiner has not considered all words of claim 53 as required by M.P.E.P. § 2143.03. Accordingly, for at least the foregoing reasons, the Examiner has not established a prima facie case of obviousness.

**B. There is No Motivation to Combine *Dubief* with *Cauwet* and *Grollier***

It is well-established law that the motivation to modify the prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. M.P.E.P. § 2143.01; see, e.g., *In re Napier*, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995). In order to support a rejection under 35 U.S.C. § 103, therefore, "the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d at 1357, 47 U.S.P.Q.2d at 1458 (Fed. Cir. 1998) (emphasis added).

The threshold for establishing a motivation or suggestion to modify a prior art reference is high. The Federal Circuit has clearly stated that the evidence of a motivation or suggestion to modify a reference must be "clear and particular." *In re Dembicziak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Thus, the Examiner can satisfy the burden of establishing a prima facie case of obviousness "only by showing some objective teaching in the prior art or that knowledge generally

available to one of ordinary skill in the art would lead that individual to [modify or] combine the relevant teachings of the references.” *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (citations omitted) (emphasis added). The Federal Circuit has reaffirmed the Examiner’s high burden to establish a prima facie case of obviousness and has emphasized the requirement of specificity. See *Kotzab*, 217 F.3d at 1370, 55 U.S.P.Q.2d, at 1317; see also *In re Sang-Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

The Examiner has not shown any suggestion or motivation, either in the cited references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the cited references to arrive at the present claims.

**1. Claims 1-3, 5-12, 16-26, and 53**

As discussed above, the Examiner glosses over the limitation that the weight ratio of said at least one cationic polymer to polyquaternium-22 is greater than or equal to 3:1 (or greater than or equal to 2:1 with respect to claim 53). The Examiner contends that both *Grollier* and *Cauwet* “teaches [sic] the benefits of the combination of cationic polymer and amphoteric polymers, and bother [sic] teach a broad range of the ratio of the polymers.” Office Action dated Feb. 24, 2005, at 4. The Examiner concludes it “is well settled that in the case where the claimed ranges ‘overlap or lie inside ranges disclosed by the prior art’ a prima facie case of obviousness exists.” *Id.* (citations omitted). Appellants respectfully disagree with the Examiner both factually and legally.

First, the broad range of ratios disclosed in *Grollier* would not teach or suggest to one of ordinary skill in the art that the ratio of at least one cationic polymer to at least one amphoteric polymer is a result-effective parameter, and thus would not provide

motivation, especially in combination with *Dubief* and *Cauwet*, to create a composition with the claimed ratio. Moreover, *Grollier*'s range is so broad that it is analogous to a genus that does not render the species obvious. See M.P.E.P. § 2144.05(I) (citing *In re Peterson*, 315 F.3d 1325, 65 U.S.P.Q.2d 1379 (Fed. Cir. 2003)). Thus, the Examiner's contention that "it is well settled" that a broad range (e.g., the ratio of 10:1 to 1:10 in *Grollier* claim 16, cited by the Examiner in Office Action dated Feb. 24, 2005, at 5) encompassing one point (e.g. the claimed ratio 3:1, or the claimed ratio 2:1) establishes a prima facie case of obviousness is factually and legally wrong. See M.P.E.P. § 2144.08(II) (citing *In re Baird*, 16 F.3d 380, 29 U.S.P.Q.2d 1550 (Fed. Cir. 1994)).

Second, this is not a case where the claimed ranges overlap or lie inside the ranges disclosed by the art. Rather, as discussed above, the entire teaching of *Cauwet* is of at least one cationic polymer in combination with at least one amphoteric polymer **in a ratio no greater than 1.5 to 1** and more specifically, where at least one amphoteric polymer is chosen from polyquaternium-22. See, e.g., *Cauwet* abstract and Examples. In other words, *Cauwet* is teaching that the weight content of cationic polymers needs to be **equal to or less than** amphoteric polymers. Thus, *Cauwet* teaches away from the present claims, which require that the weight ratio of the at least one cationic polymer to the at least one amphoteric polymer be greater than or equal to 3:1 (or greater than or equal to 2:1 for claim 53). That is, in the present claims, the weight content of the at least one cationic polymer is **greater than** the at least one amphoteric polymer.

The Examiner attempts to rebut this argument by citing the claim language in *Cauwet*, which is any "synergistic combination" of cationic to amphoteric polymer. The

claim language does not change the fact that the specification of *Cauwet* teaches the synergistic combination is a ratio of cationic to amphoteric polymer of **no greater than** 1.5 to 1. See *Cauwet* specification at col. 1, lines 49-53 ("It has been discovered that the combination of certain conditioning polymers . . . when they are used in a given ratio make it possible to overcome these disadvantages due to a synergistic effect that is achieved."). See also *Cauwet* abstract and Examples.

The Examiner cannot merely rely on *Cauwet*'s claim language and its teaching of amphoteric polymers, and ignore the amount of amphoteric polymers taught throughout the specification. As discussed above, a reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must also be considered. Moreover, any attempt to cure the teaching away in this case would be fundamentally improper as it would destroy the inventive nature of *Cauwet*. See *In re Laskowski*, 871 F.2d 115, 10 USPQ 2d 1397 (Fed. Cir. 1989) (holding that it is improper to combine references if their combination would result in the destruction of the intended operation or if a reference teaches away from the claimed invention).

Therefore, one of ordinary skill in the art would **not** be motivated to combine the teachings of *Dubief*, *Grollier* and *Cauwet* in order to create the presently claimed invention. The Examiner has failed to establish particular findings as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected the components of the claimed invention from the cited references for combination in the manner claimed. See *Kotzab*, 217 F.3d at 1371, 55 USPQ2d at 1318 (Fed. Cir. 1998). Accordingly, the Examiner cannot and has not satisfied the burden of proof to establish a prima facie case of obviousness with respect to claims 1-3, 5-12, 16-26, and 53.

## 2. Claim 50

As discussed above, the Examiner's attempt to show a prima facie case of obviousness with respect to claim 50 rests solely on his conclusion that "making a kit comprising the composition herein and other hair treating composition, such as hair dyeing composition is obvious to one of ordinary skill in the art because such composition is known to be particularly useful before or after other hair treatment." Final Office Action at 4. Such a statement does not show any particular findings as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected the components of the claimed invention from the cited references for combination in the manner claimed, as the Examiner is required to show. *Kotzab*, 217 F.3d at 1371, 55 USPQ2d at 1318 (Fed. Cir. 1998).

Indeed, the Examiner cannot make such particular findings at least because, as discussed above, the combined cited references do not teach all of the claimed components of the present invention. In addition, the only reference that even teaches "two stage formulations" that might suggest a two-compartment kit is *Grollier*. However, the two stage formulations of *Grollier* teach the specific cationic polymer and specific amphoteric polymers **in separate compositions**, which is contrary to, and would teach away from, the kit compositions as claimed. See *Grollier* at Examples 21-23. Further, neither Dubief nor Cauwet teach or suggest a two-step composition or process that would indicate the need for a multi-compartment kit as-claimed.

Broad statements, such as the one made by the Examiner, are not enough to satisfy the Examiner's burden to prove obviousness. Appellants respectfully submit that the Examiner has not and cannot point to the required "clear and particular" teaching as

one does not exist. Accordingly, the Examiner cannot and has not satisfied the burden of proof to establish a prima facie case of obviousness with respect to claim 50.

**VIII. CONCLUSION**

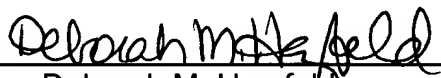
For the reasons given above, rejected claims 1-3, 5-12, 16-26, 50, and 53 are allowable and reversal of the Examiner's rejection is respectfully requested. The Examiner has failed to establish a prima facie case of obviousness at least because the cited references do not teach each claim limitation, and there is no motivation to combine the cited references.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: June 15, 2006

By:   
Deborah M. Herzfeld  
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**Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)**

1. (Previously Presented) A composition comprising:

at least one compound chosen from ceramides and glycosphingolipids,

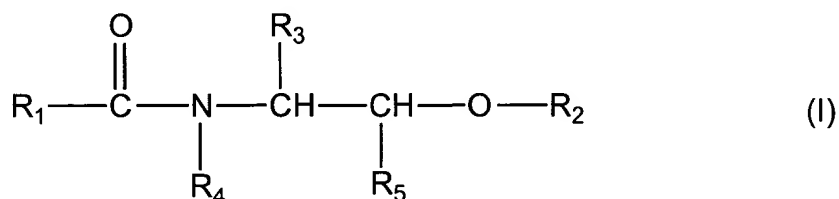
at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22,

wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1.

2. (Original) A composition according to claim 1, wherein said ceramides and glycosphingolipids are chosen from natural and synthetic ceramides, natural and synthetic glycosphingolipids, natural and synthetic pseudoceramides and natural and synthetic neoceramides.

3. (Original) A composition according to claim 1, wherein said natural and synthetic ceramides and natural and synthetic glycosphingolipids correspond to the following formula (I):



wherein

- R<sub>1</sub> is chosen from:



- linear and branched, saturated and unsaturated,  $C_5$ - $C_{50}$  hydrocarbon radicals, wherein said radicals may be substituted with at least one hydroxyl group, said at least one hydroxyl group being optionally esterified with an acid  $R_6COOH$  wherein  $R_6$  is chosen from saturated and unsaturated, linear and branched  $C_1$ - $C_{35}$  hydrocarbon radicals which may be monohydroxylated or polyhydroxylated, and further wherein when said hydrocarbon radicals of  $R_6$  are mono- or polyhydroxylated, said hydroxyl group(s) may be esterified with a compound chosen from saturated and unsaturated, linear and branched  $C_1$ - $C_{35}$  fatty acids which may be monohydroxylated or polyhydroxylated,

-  $R''-(NR-CO)-R'$  radicals, wherein  $R$  is chosen from a hydrogen atom and mono- and polyhydroxylated  $C_1$ - $C_{20}$  hydrocarbon radicals, and  $R'$  and  $R''$  are chosen from hydrocarbon radicals in which the sum of the carbon atoms ranges from 9 to 30,  $R'$  being a divalent radical, and

-  $R_7-O-CO-(CH_2)_a$  radicals, wherein  $R_7$  is chosen from  $C_1$ - $C_{20}$  hydrocarbon radicals and  $a$  is an integer ranging from 1 to 12;

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_b$ , (galactosyl) $_c$ , sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein  $b$  is an integer ranging from 1 to 4 and  $c$  is an integer ranging from 1 to 8;

-  $R_3$  is chosen from a hydrogen atom and saturated and unsaturated, hydroxylated and non-hydroxylated  $C_1$ - $C_{33}$  hydrocarbon radicals, it being possible for the hydroxylated hydrocarbon radical(s) to be esterified with an acid chosen from inorganic acids and organic acids of the formula  $R_6COOH$ , wherein  $R_6$  is defined above, it also being possible for the hydroxylated hydrocarbon radical(s) to be etherified with a radical

chosen from (glycosyl)<sub>b</sub>, (galactosyl)<sub>c</sub>, sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein b and c are defined above, and it also being possible for R<sub>3</sub> to be substituted with at least one C<sub>1</sub>-C<sub>14</sub> alkyl radical;

- R<sub>4</sub> is chosen from a hydrogen atom, methyl radicals, ethyl radicals, saturated and unsaturated, linear and branched, optionally hydroxylated C<sub>3</sub>-C<sub>50</sub> hydrocarbon radicals and radicals -CH<sub>2</sub>-CHOH-CH<sub>2</sub>-O-R<sub>8</sub> in which R<sub>8</sub> is chosen from C<sub>10</sub>-C<sub>26</sub> hydrocarbon radicals and radicals R<sub>7</sub>-O-CO-(CH<sub>2</sub>)<sub>a</sub>, R<sub>7</sub> being chosen from C<sub>1</sub>-C<sub>20</sub> hydrocarbon radicals and a being an integer ranging from 1 to 12;

- R<sub>5</sub> is chosen from a hydrogen atom and saturated and unsaturated, linear and branched, optionally mono- and polyhydroxylated C<sub>1</sub>-C<sub>30</sub> hydrocarbon radicals, it being possible for the hydroxyl radical(s) to be etherified with a radical chosen from (glycosyl)<sub>b</sub>, (galactosyl)<sub>c</sub>, sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein b and c are defined above;

with the proviso that when R<sub>3</sub> and R<sub>5</sub> are a hydrogen atom or when R<sub>3</sub> is a hydrogen atom and R<sub>5</sub> is a methyl radical, then R<sub>4</sub> is not a hydrogen atom or a methyl or ethyl radical.

4. (Withdrawn) A composition according to claim 3, wherein in said radicals R''-(NR-CO)-R', R is chosen from monohydroxylated C<sub>1</sub>-C<sub>20</sub> hydrocarbon radicals.

5. (Original) A composition according to claim 3, wherein in said formula (I), R<sub>3</sub> is chosen from C<sub>15</sub>-C<sub>26</sub> α-hydroxyalkyl radicals wherein the hydroxyl group may optionally be esterified with a C<sub>16</sub>-C<sub>30</sub> α-hydroxy acid.

6. (Original) A composition according to claim 3, wherein in formula (I), R<sub>1</sub> is an optionally hydroxylated, saturated or unsaturated alkyl radical derived from C<sub>14</sub>-C<sub>22</sub> fatty

acids;  $R_2$  is a hydrogen atom; and  $R_3$  is an optionally hydroxylated linear, saturated  $C_{11}$ - $C_{17}$  radical.

7. (Original) A composition according to claim 6, wherein  $R_3$  is an optionally hydroxylated linear, saturated  $C_{13}$ - $C_{15}$  radical.

8. (Previously Presented) A composition according to claim 1, wherein said at least one compound chosen from ceramides and glycosphingolipids is chosen from:

- N-linoleoyldihydrosphingosine,
- N-palmitoyldihydrosphingosine,
- N-stearoyldihydrosphingosine,
- N-behenoyldihydrosphingosine,
- N-2-hydroxypalmitoyldihydrosphingosine,
- N-stearoylphytosphingosine,
- 2-oleamido-1,3-octadecanediol, and
- N-palmitamidohexadecanediol.

9. (Original) A composition according to claim 8, wherein said at least one compound chosen from ceramides and glycosphingolipids is chosen from 2-oleamido-1,3-octadecanediol and N-2-hydroxypalmitoyldihydrosphingosine.

10. (Original) A composition according to claim 1, wherein said at least one cationic polymer is chosen from cationic polymers containing monomer units comprising amine groups chosen from primary, secondary, tertiary and quaternary amine groups, wherein said amine groups may either form part of the main polymer chain or can be borne by a side substituent directly linked thereto.

11. (Original) A composition according to claim 10, wherein said at least one cationic polymer is chosen from polyamine, polyamino amide and polyquaternary ammonium polymers.

12. (Original) A composition according to claim 1, wherein said at least one cationic polymer is chosen from polyquaternium-2, polyquaternium-34, and hexadimethrine chloride.

13. (Canceled).

14. (Canceled).

15. (Canceled).

16. (Original) A composition according to claim 1, wherein said at least one compound chosen from ceramides and glycoceramides is present in the composition in an amount effective for providing improved protection to said keratinous fibers.

17. (Original) A composition according to claim 1, wherein said at least one compound chosen from ceramides and glycoceramides is present in said composition in an amount ranging from about 0.0005% to about 2% by weight relative to the total weight of the composition.

18. (Original) A composition according to claim 17, wherein said at least one compound chosen from ceramides and glycoceramides is present in said composition in an amount ranging from about 0.001% to about 1% by weight relative to the total weight of the composition.

19. (Original) A composition according to claim 1, wherein said at least one cationic polymer is present in the composition in an amount effective to provide improved styling to said keratinous fibers, and further wherein the composition contains

at least one compound chosen from ceramides and glycoceramides present in an amount effective for providing improved protection to said keratinous fibers.

20. (Original) A composition according to claim 1, wherein said at least one cationic polymer is present in said composition in an amount ranging from about 0.01% to about 5% by weight relative to the total weight of the composition.

21. (Original) A composition according to claim 20, wherein said at least one cationic polymer is present in said composition in an amount ranging from about 0.05% to about 2% by weight relative to the total weight of the composition.

22. (Original) A composition according to claim 1, wherein said at least one amphoteric polymer is present in said composition in an amount effective to provide improved styling to said keratinous fibers, and further wherein the composition contains at least one compound chosen from ceramides and glycoceramides present in an amount effective for providing improved protection to said keratinous fibers.

23. (Original) A composition according to claim 1, wherein said at least one amphoteric polymer is present in said composition in an amount ranging from about 0.01% to about 5% by weight relative to the total weight of the composition.

24. (Original) A composition according to claim 23, wherein said at least one amphoteric polymer is present in said composition in an amount ranging from about 0.05% to about 2% by weight relative to the total weight of the composition.

25. (Original) A composition according to claim 1, further comprising at least one adjuvant chosen from surfactants chosen from anionic, cationic, nonionic, and amphoteric surfactants; polymers chosen from anionic, nonionic, additional cationic and additional amphoteric polymers; thickeners chosen from inorganic and organic

thickeners; antioxidants; stabilizing agents; propellants; sequestering agents; emollients; humectants; fragrances; acidifying and basifying agents; sunscreens; vitamins; essential fatty acids; proteins and protein derivatives; preservatives; and opacifiers.

26. (Original) A composition according to claim 1, wherein said composition is in the form of an aqueous emulsion, a gel, a spray, or a hydroalcoholic lotion.

27. (Withdrawn -- Previously Presented) A process for protecting keratinous fibers from damage caused by chemical treatment of said keratinous fibers comprising:

applying to said keratinous fibers a leave-in composition comprising at least one compound chosen from ceramides and glycosphingolipids,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22,

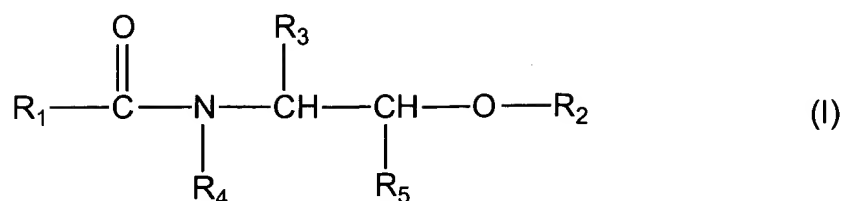
wherein the weight ratio of said at least one cationic polymer to said at least one amphoteric polymer is greater than or equal to 3:1, and

applying to said keratinous fibers having thereon said leave-in composition a chemical treatment composition for chemical treatment of said keratinous fibers.

28. (Withdrawn) A process according to claim 27, wherein said chemical treatment is chosen from dyeing, bleaching, relaxing, and permanent waving.

29. (Withdrawn) A process according to claim 27, wherein said ceramides and glycosphingolipids are chosen from natural or synthetic ceramides, glycosphingolipids, pseudoceramides and neoceramides.

30. (Withdrawn) A process according to claim 29, wherein said natural or synthetic ceramides and glycosphingolipids correspond to the following formula (I):



wherein

-  $\text{R}_1$  is chosen from:

- linear and branched, saturated and unsaturated,  $\text{C}_5$ - $\text{C}_{50}$  hydrocarbon radicals, wherein said radicals may be substituted with at least one hydroxyl group, said at least one hydroxyl group being optionally esterified with an acid  $\text{R}_6\text{COOH}$  wherein  $\text{R}_6$  is chosen from saturated and unsaturated, linear and branched  $\text{C}_1$ - $\text{C}_{35}$  hydrocarbon radicals which may be monohydroxylated or polyhydroxylated, and further wherein when said hydrocarbon radicals of  $\text{R}_6$  are mono- or polyhydroxylated, said hydroxyl group(s) may be esterified with a compound chosen from saturated and unsaturated, linear and branched  $\text{C}_1$ - $\text{C}_{35}$  fatty acids which may be monohydroxylated or polyhydroxylated,

-  $\text{R}''\text{-(NR-CO)-R}'$  radicals, wherein  $\text{R}$  is chosen from a hydrogen atom and mono- and polyhydroxylated  $\text{C}_1$ - $\text{C}_{20}$  hydrocarbon radicals, and  $\text{R}'$  and  $\text{R}''$  are chosen from hydrocarbon radicals in which the sum of the carbon atoms ranges from 9 to 30,  $\text{R}'$  being a divalent radical, and

-  $\text{R}_7\text{-O-CO-(CH}_2)_a$  radicals, wherein  $\text{R}_7$  is chosen from  $\text{C}_1$ - $\text{C}_{20}$  hydrocarbon radicals and  $a$  is an integer ranging from 1 to 12;

-  $\text{R}_2$  is chosen from a hydrogen atom and (glycosyl) $_b$ , (galactosyl) $_c$ , sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein  $b$  is an integer ranging from 1 to 4 and  $c$  is an integer ranging from 1 to 8;

- $R_3$  is chosen from a hydrogen atom and saturated and unsaturated, hydroxylated and non-hydroxylated  $C_1$ - $C_{33}$  hydrocarbon radicals, it being possible for the hydroxylated hydrocarbon radical(s) to be esterified with an acid chosen from inorganic acids and organic acids of the formula  $R_6COOH$ , wherein  $R_6$  is defined above, it also being possible for the hydroxylated hydrocarbon radical(s) to be etherified with a radical chosen from (glycosyl)<sub>b</sub>, (galactosyl)<sub>c</sub>, sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein b and c are defined above, and it also being possible for  $R_3$  to be substituted with at least one  $C_1$ - $C_{14}$  alkyl radical;
- $R_4$  is chosen from a hydrogen atom, methyl radicals, ethyl radicals, saturated and unsaturated, linear and branched, optionally hydroxylated  $C_3$ - $C_{50}$  hydrocarbon radicals and radicals  $-CH_2-CHOH-CH_2-O-R_8$  in which  $R_8$  is chosen from  $C_{10}$ - $C_{26}$  hydrocarbon radicals and radicals  $R_7-O-CO-(CH_2)_a$ ,  $R_7$  being chosen from  $C_1$ - $C_{20}$  hydrocarbon radicals and a being an integer ranging from 1 to 12;
- $R_5$  is chosen from a hydrogen atom and saturated and unsaturated, linear and branched, optionally mono- and polyhydroxylated  $C_1$ - $C_{30}$  hydrocarbon radicals, it being possible for the hydroxyl radical(s) to be etherified with a radical chosen from (glycosyl)<sub>b</sub>, (galactosyl)<sub>c</sub>, sulphogalactosyl, phosphorylethylamine and phosphorylethylammonium radicals, wherein b and c are defined above;

with the proviso that when  $R_3$  and  $R_5$  are a hydrogen atom or when  $R_3$  is a hydrogen atom and  $R_5$  is a methyl radical, then  $R_4$  is not a hydrogen atom or a methyl or ethyl radical.

31. (Withdrawn) A process according to claim 30, wherein in said radicals  $R''$ - $(NR-CO)-R'$ , R is chosen from monohydroxylated  $C_1$ - $C_{20}$  hydrocarbon radicals.



32. (Withdrawn) A process according to claim 30, wherein in said formula (I),  $R_3$  is chosen from  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals wherein the hydroxyl group may optionally be esterified with a  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid.

33. (Withdrawn) A process according to claim 30, wherein in formula (I),  $R_1$  is an optionally hydroxylated, saturated or unsaturated alkyl radical derived from  $C_{14}$ - $C_{22}$  fatty acids;  $R_2$  is a hydrogen atom; and  $R_3$  is an optionally hydroxylated linear, saturated  $C_{11}$ - $C_{17}$  radical.

34. (Withdrawn) A process according to claim 33, wherein  $R_3$  is an optionally hydroxylated linear, saturated  $C_{13}$ - $C_{15}$  radical.

35. (Withdrawn -- Previously Presented) A process according to claim 27, wherein said at least one compound chosen from ceramides and glycosphingolipids is chosen from:

- N-linoleoyldihydrosphingosine,
- N-palmitoyldihydrosphingosine,
- N-stearoyldihydrosphingosine,
- N-behenoyldihydrosphingosine,
- N-2-hydroxypalmitoyldihydrosphingosine,
- N-stearoylphytohydrosphingosine,
- 2-oleamido-1,3-octadecanediol, and
- N-palmitamidohexadecanediol.

36. (Withdrawn) A process according to claim 35, wherein said at least one compound chosen from ceramides and glycosphingolipids is chosen from 2-oleamido-1,3-octadecanediol and N-2-hydroxypalmitoyldihydrosphingosine.

37. (Canceled) A process according to claim 27, wherein said leave-in composition further comprises at least one polymer chosen from at least one cationic polymer and at least one amphoteric polymer.

38. (Withdrawn -- Previously Presented) A process according to claim 27, wherein said at least one cationic polymer is chosen from cationic polymers containing monomer units comprising amine groups chosen from primary, secondary, tertiary and quaternary amine groups, wherein said amine groups may either form part of the main polymer chain or can be borne by a side substituent directly linked thereto.

39. (Withdrawn) A process according to claim 38, wherein said at least one cationic polymer is chosen from polyamine, polyamino amide and polyquaternary ammonium polymers.

40. (Withdrawn) A process according to claim 39, wherein said at least one cationic polymer is chosen from polyquaternium-2, polyquaternium-34, and hexadimethrine chloride.

41. (Canceled).

42. (Canceled).

43. (Canceled).

44. (Withdrawn -- Previously Presented) A process according to claim 27, wherein said at least one compound chosen from ceramides and glycosceramides is present in the composition in an amount effective for providing improved protection to said keratinous fibers.

45. (Withdrawn) A process according to claim 27, wherein said at least one compound chosen from ceramides and glycosceramides is present in said composition in

an amount ranging from about 0.0005% to about 2% by weight relative to the total weight of the composition.

46. (Withdrawn) A process according to claim 27, wherein said at least one cationic polymer is present in the composition in an amount effective to provide improved styling to said keratinous fibers, and further wherein the composition contains at least one compound chosen from ceramides and glycoceramides present in an amount effective for providing improved protection to said keratinous fibers.

47. (Withdrawn) A process according to claim 27, wherein said at least one cationic polymer is present in said composition in an amount ranging from about 0.01 to about 5% by weight relative to the total weight of the composition.

48. (Withdrawn) A process according to claim 27, wherein said at least one amphoteric polymer is present in said composition in an amount effective to provide improved styling to said keratinous fibers, and further wherein the composition contains at least one compound chosen from ceramides and glycoceramides present in an amount effective for providing improved protection to said keratinous fibers.

49. (Withdrawn) A process according to claim 27, wherein said at least one amphoteric polymer is present in said composition in an amount ranging from about 0.01 to about 5% by weight relative to the total weight of the composition.

50. (Previously Presented) A multi-compartment kit for chemical treatment of keratinous fibers, said kit comprising at least two separate compartments, wherein a first compartment comprises a composition comprising  
at least one compound chosen from ceramides and glycoceramides,  
at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22, and  
a second compartment comprises a composition for chemical treatment of said  
keratinous fibers,

wherein said composition for chemical treatment is an oxidizing composition.

51. (Canceled).

52. (Canceled).

53. (Previously Presented) A pretreatment composition comprising:

at least one compound chosen from ceramides and glycoceramides,

at least one cationic polymer, and

at least one amphoteric polymer chosen from polyquaternium-22,

wherein said pretreatment composition is not a dyeing composition, a bleaching  
composition, a permanent waving composition, a relaxing composition, or a  
straightening composition,

wherein the weight ratio of said at least one cationic polymer to said at least one  
amphoteric polymer is greater than or equal to 2:1, and

wherein the pH of said pretreatment composition is greater than or equal to  
about 4.

**Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)**

There is no extrinsic evidence being cited or relied upon by Appellants in this case.



Application No.: 09/648,376  
Attorney Docket No.: 05725.0633-00

**Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)**

There are no related Appellate proceedings or decisions to be cited in this case.